A simple home-based exercise program is required for people with mild to moderate knee osteoarthritis

We appreciate the comments and discussion from Hill and Williams on our study. We agree that an individualised balance exercise program is ideal for people with knee arthritis who have a high risk of falling. However, resource constraints in some settings may necessitate a simple home-based exercise program that can be generally recommended to patients with mild or moderate knee osteoarthritis. The exercise program in this study is meant to be simple enough for such patients to practise by themselves, allowing it to be a general exercise program that can be distributed in the community.

On most characteristics, those participants who later dropped out did not differ from those who completed the trial. However, Hill and Williams correctly infer that those who dropped out performed better on the time to walk 15 metres, and the Get Up and Go test. We have amended the table of individual data for our trial to include the baseline measures of those who dropped out of the strength training group (see Table 3, Chaipinyo and Karoonsupcharoen 2009). We are able to do this via the e-Addenda feature of *Australian Journal of Physiotherapy* (Herbert 2008). We did attempt to account for these differences by observing change from baseline as opposed to final values. However, we also acknowledge that a more sophisticated method of dealing with these differences would have been to adjust for these differences as a covariate in our analysis.

To enable comparison of the outcome of this study with other knee OA studies, functional ability measures including walking, Get Up and Go, and walking up and down 11 stairs were used in our study (Chaipinyo and Karoonsupcharoen 2009, Fransen and McConnell 2008, Hurley and Scott 1998). The international consensus statement regarding the core set of outcome measures for phase III clinical trials in OA (Bellamy et al 1997) stated that randomised clinical trials should include self-reported measures of pain, physical function or both. The BOOMER overall balance score has been developed for and validated in the aged rehabilitation setting, including patients with neurological conditions, fracture, and arthritis as a subgroup (Haines et al 2007). The purpose of BOOMER is to measure standing balance. It includes step up, Timed Up and Go test, functional reach test, and static standing with eyes closed. There are some similar outcomes between these two measurements. However, walking up and down 11 stairs, as used in our study, is closer to functional movement than counting the number of steps within 15 seconds, as used in BOOMER (Haines et al 2007).

The training program in our study was aimed at improving pain and functional ability related to knee OA, not specifically to improve fall rates. The Otago exercise program is recommended to prevent falls in people aged 80 years or older who have had a fall in the previous twelve months whereas in our study the mean (standard deviation) age of participants was 66 (7) years. Specific balance training is needed for people at high risk of falls but for younger people, such as in our study, a simple home-based general program could be more applicable to larger populations in the community.

Significant improvements in pain, strength, and functional mobility were found after training for 4 weeks in this study. This may indicate the point where changes can be detected. Therefore we believe it was worthwhile to examine interventions with this duration.

Finally, we agree with Hill and Williams that further well designed randomised trials regarding the effects of balance training in people with knee OA are required to explore the potential benefits of this approach not only on standing balance but also on pain and functional mobility.

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